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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/518,502

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Motoki Tsunokawa

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ALEXANDRIA, VA 22314

EXAMINER

INGVOLDSTAD, BENNETT

ART UNIT

PAPER NUMBER

2623

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/518,502	Applicant(s) TSUNOKAWA ET AL.	
	Examiner BENNETT INGOLDSTAD	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/15/2005, 12/20/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 12/20/2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because English language translations of the cited foreign patent documents were not provided. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 3, 12, and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 3, 12, and 16 are directed to a “program to allow a computer to perform”. A “program” is non-statutory.

The examiner suggests amending the claims to be directed to a --computer readable medium encoded with a computer program--.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Knudson et al. (US 2006/0095937).

Regarding claim 13, Knudson discloses an information processing apparatus comprising:

- first means for receiving a file containing information about a characteristic word representing a characteristic of a television program (user equipment receives a list of categories by which television programs are classified [0053]);

- input means for allowing a user to select an intended characteristic word from characteristic words contained in said file (selecting a category from the category list [0056]);
- means for transmitting information about a characteristic word selected by said user to other apparatuses (transmitting the selected category over the network to the headend apparatus containing program information database apparatus 24 [0062]); and
- second means for receiving television program information about a television program corresponding to said selected characteristic word transmitted from said other apparatuses as a result of transmitting information about said selected characteristic word (receiving the search results [0063]).

Regarding claim 14, depending on claim 13, Knudson further discloses wherein said first reception means receives a file containing information about said characteristic word from said other apparatuses (user equipment receives a file containing a list of characteristic categories from the headend [0053]).

Regarding claim 15, Omoigui discloses an information processing method comprising:

- a first step of controlling reception of a file containing information about a characteristic word representing a characteristic of a television program

(user equipment receives a list of categories by which television programs are classified [0053]);

- an input step of allowing a user to select an intended characteristic word from characteristic words contained in said file (selecting a category from the category list [0056]);
- a step of controlling transmission of information about a characteristic word selected by said user to other apparatuses (transmitting the selected category over the network to the headend apparatus containing program information database apparatus 24 [0062]); and
- a second step of controlling reception of television program information about a television program corresponding to said selected characteristic word transmitted from said other apparatuses as a result of transmitting information about said selected characteristic word (receiving the search results [0063]).

Regarding claim 16, Omoigui discloses a program to allow a computer to perform:

- a first step of controlling reception of a file containing information about a characteristic word representing a characteristic of a television program (user equipment receives a list of categories by which television programs are classified [0053]);

- an input step of allowing a user to select an intended characteristic word from characteristic words contained in said file (selecting a category from the category list [0056]);
- a step of controlling transmission of information about a characteristic word selected by said user to other apparatuses (transmitting the selected category over the network to the headend apparatus containing program information database apparatus 24 [0062]); and
- a second step of controlling reception of television program information about a television program corresponding to said selected characteristic word transmitted from said other apparatuses as a result of transmitting information about said selected characteristic word (receiving the search results [0063]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 5, 7, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omoigui (US 2005/0076378) in view of Knudson et al. (US 2006/0095937).

Regarding claim 1, Omoigui discloses an information processing apparatus comprising:

- means for acquiring television program information including information concerning television program contents (acquiring program contents information [Fig 4] pertaining to television broadcasts [0021]);
- means for extracting a characteristic word representing characteristics of said television program from said television program information (automatically generating descriptive information [0048-0049] comprising characteristic words [Fig 4]);
- first means for creating a first file containing said characteristic word extracted from television program information about a plurality of television programs (creating a database file containing the characteristic description words [Fig 4]) [...]; and
- second means for, if receiving information from said other apparatuses (receiving search queries from clients [0050]), namely, information about a given characteristic word selected from first file (searches may be based on any field [0050] including characteristic description words [Fig 4]), providing said other apparatuses with television program information about a television program corresponding to said selected characteristic word (returning search results [0051]).

Omoigui does not further disclose providing said file to other apparatuses.

Knudson discloses in an analogous art a search apparatus comprising a file containing characteristic words (a list of program categories [0053]) and means for "providing said file to other apparatuses" (the list is provided to user equipment [0053]).

It would have been obvious to have modified the search apparatus as disclosed by Omoigui with the teaching of Knudson so that the search apparatus provides a file of characteristic words (characteristics 236, descriptive information 238 [Omoigui Fig 4], categories [Knudson 0053]) to the user equipment for the purpose of allowing the user to search for program listings by selecting characteristic words [Knudson 0056] instead of manually entering search terms [Omoigui 0050], thus improving the invention by allowing the user to conduct searches using an ordinary remote control (remote control 42 [Knudson 0056]).

Regarding claim 2, Omoigui discloses an information processing method comprising:

- a step of acquiring television program information including information concerning television program contents (acquiring program contents information [Fig 4] pertaining to television broadcasts [0021]);
- a step of extracting a characteristic word representing characteristics of said television program from said television program information (automatically generating descriptive information [0048-0049] comprising characteristic words [Fig 4]);

- a first step of creating a first file containing said characteristic word extracted from television program information about a plurality of television programs (creating a database file containing the characteristic description words [Fig 4]) [...]; and
- a second step of, if receiving information from said other apparatuses (receiving search queries from clients [0050]), namely, information about a given characteristic word selected from said first file (searches may be based on any field [0050] including characteristic description words [Fig 4]), providing said other apparatuses with television program information about a television program corresponding to said selected characteristic word (returning search results [0051]).

Omoigui does not further disclose providing said file to other apparatuses.

Knudson discloses in an analogous art a search apparatus comprising a file containing characteristic words (a list of program categories [0053]) and means for “providing said file to other apparatuses” (the list is provided to user equipment [0053]).

It would have been obvious to have modified the search apparatus as disclosed by Omoigui with the teaching of Knudson so that the search apparatus provides a file of characteristic words (characteristics 236, descriptive information 238 [Omoigui Fig 4], categories [Knudson 0053]) to the user equipment for the purpose of allowing the user to search for program listings by selecting characteristic words [Knudson 0056] instead of manually entering search terms

[Omoigui 0050], thus improving the invention by allowing the user to conduct searches using an ordinary remote control (remote control 42 [Knudson 0056]).

Regarding claim 3, Omoigui discloses a program to allow a computer to perform:

- a step of acquiring television program information including information concerning television program contents (acquiring program contents information [Fig 4] pertaining to television broadcasts [0021]);
- a step of extracting a characteristic word representing characteristics of said television program from said television program information (automatically generating descriptive information [0048-0049] comprising characteristic words [Fig 4]);
- a first step of creating a first file containing said characteristic word extracted from television program information about a plurality of television programs (creating a database file containing the characteristic description words [Fig 4]) [...]; and
- a second step of, if receiving information from said other apparatuses (receiving search queries from clients [0050]), namely, information about a given characteristic word selected from said first file (searches may be based on any field [0050] including characteristic description words [Fig 4]), providing said other apparatuses with television program information about a television program corresponding to said selected characteristic word (returning search results [0051]).

Omoigui does not further disclose providing said file to other apparatuses.

Knudson discloses in an analogous art a search apparatus comprising a file containing characteristic words (a list of program categories [0053]) and means for “providing said file to other apparatuses” (the list is provided to user equipment [0053]).

It would have been obvious to have modified the search apparatus as disclosed by Omoigui with the teaching of Knudson so that the search apparatus provides a file of characteristic words (characteristics 236, descriptive information 238 [Omoigui Fig 4], categories [Knudson 0053]) to the user equipment for the purpose of allowing the user to search for program listings by selecting characteristic words [Knudson 0056] instead of manually entering search terms [Omoigui 0050], thus improving the invention by allowing the user to conduct searches using an ordinary remote control (remote control 42 [Knudson 0056]).

Regarding claim 4, Omoigui discloses an information processing apparatus comprising:

- means for acquiring a television program ID for identifying a specific television program and television program information including information concerning television program contents (acquiring program IDs [Fig 4] pertaining to television broadcasts [0021]);
- means for extracting a characteristic word representing characteristics of said television program from said television program information

(automatically generating descriptive information [0048-0049] comprising characteristic words [Fig 4]);

- first means for creating a first file containing said characteristic word extracted from television program information about a plurality of television programs (creating a database file containing the characteristic description words [Fig 4]) [...]; and
- means for associating said characteristic word with a television program ID of a television program information corresponding to each characteristic word for storage (content database 112 associates characteristic words with program IDs [Fig 4]); and
- second means for, if receiving information from said other apparatuses (receiving search queries from clients [0050]), namely, information about a given characteristic word selected from said first file (searches may be based on any field [0050] including characteristic description words [Fig 4]), referencing said association means (comparing search queries to database entries [0050]), reading a television program ID associated with said selected characteristic word, and providing said other apparatuses with television program information corresponding to said television program ID (providing search results including program IDs [0051]).

Omoigui does not further disclose providing said file to other apparatuses.

Knudson discloses in an analogous art a search apparatus comprising a file containing characteristic words (a list of program categories [0053]) and means

for “providing said file to other apparatuses” (the list is provided to user equipment [0053]).

It would have been obvious to have modified the search apparatus as disclosed by Omoigui with the teaching of Knudson so that the search apparatus provides a file of characteristic words (characteristics 236, descriptive information 238 [Omoigui Fig 4], categories [Knudson 0053]) to the user equipment for the purpose of allowing the user to search for program listings by selecting characteristic words [Knudson 0056] instead of manually entering search terms [Omoigui 0050], thus improving the invention by allowing the user to conduct searches using an ordinary remote control (remote control 42 [Knudson 0056]).

Regarding claim 5, depending on claim 4, Omoigui further discloses wherein said characteristic word extraction means counts the number of occurrences of a given word contained in each of said television program information and extracts a word having a large count value as said characteristic word [0055].

Regarding claim 7, depending on claim 4, Omoigui further discloses wherein said characteristic word extraction means extracts a predetermined word as said characteristic word (predetermined by the content author [0048]).

Regarding claim 10, depending on claim 4, Omoigui in view of Knudson does not further disclose wherein said first provision means determines whether or not

said first file already stores a characteristic word extracted by said characteristic word extraction means and, if already stored, does not add said characteristic word to said first file.

Knudson suggests that the characteristic word file does not duplicate entries (the characteristic word file is a list of unique categories [Knudson 0055]).

OFFICIAL NOTICE is taken that it was a well-known technique for avoiding duplication in a word list to compare a word to be added to the list to the word list, and if the word is contained in the word list, to not add the word to the word list.

Therefore it would have been obvious to have modified the means for adding characteristic words to the characteristic words file (building the category word list [Knudson 0055]) to have determined “whether or not said first file already stores a characteristic word extracted by said characteristic word extraction means and, if already stored, does not add said characteristic word to said first file” for the purpose of avoiding duplication of characteristic words in the characteristic words file, thus reducing memory requirements.

Regarding claim 11, Omoigui discloses an information processing method comprising:

- a step of acquiring a television program ID for identifying a specific television program and television program information including

information concerning television program contents (acquiring program IDs [Fig 4] pertaining to television broadcasts [0021]);

- a step of extracting a characteristic word representing characteristics of said television program from said television program information (automatically generating descriptive information [0048-0049] comprising characteristic words [Fig 4]);
- a first step of creating a first file containing said characteristic word extracted from television program information about a plurality of television programs (creating a database file containing the characteristic description words [Fig 4]) [...]; and
- a step of associating said characteristic word with a television program ID of a television program information corresponding to each characteristic word for storage (content database 112 associates characteristic words with program IDs [Fig 4]); and
- a second step of, if receiving information from said other apparatuses (receiving search queries from clients [0050]), namely, information about a given characteristic word selected from said first file (searches may be based on any field [0050] including characteristic description words [Fig 4]), referencing said association step (comparing search queries to database entries [0050]), reading a television program ID associated with said selected characteristic word, and providing said other apparatuses

with television program information corresponding to said television program ID (providing search results including program IDs [0051]).

Omoigui does not further disclose providing said file to other apparatuses.

Knudson discloses in an analogous art a search apparatus comprising a file containing characteristic words (a list of program categories [0053]) and means for “providing said file to other apparatuses” (the list is provided to user equipment [0053]).

It would have been obvious to have modified the search apparatus as disclosed by Omoigui with the teaching of Knudson so that the search apparatus provides a file of characteristic words (characteristics 236, descriptive information 238 [Omoigui Fig 4], categories [Knudson 0053]) to the user equipment for the purpose of allowing the user to search for program listings by selecting characteristic words [Knudson 0056] instead of manually entering search terms [Omoigui 0050], thus improving the invention by allowing the user to conduct searches using an ordinary remote control (remote control 42 [Knudson 0056]).

Regarding claim 12, Omoigui discloses a program to allow a computer to perform:

- a step of acquiring a television program ID for identifying a specific television program and television program information including information concerning television program contents (acquiring program IDs [Fig 4] pertaining to television broadcasts [0021]);

- a step of extracting a characteristic word representing characteristics of said television program from said television program information (automatically generating descriptive information [0048-0049] comprising characteristic words [Fig 4]);
- a first step of creating a first file containing said characteristic word extracted from television program information about a plurality of television programs (creating a database file containing the characteristic description words [Fig 4]) [...]; and
- a step of associating said characteristic word with a television program ID of a television program information corresponding to each characteristic word for storage (content database 112 associates characteristic words with program IDs [Fig 4]); and
- a second step of, if receiving information from said other apparatuses (receiving search queries from clients [0050]), namely, information about a given characteristic word selected from said first file (searches may be based on any field [0050] including characteristic description words [Fig 4]), referencing said association step (comparing search queries to database entries [0050]), reading a television program ID associated with said selected characteristic word, and providing said other apparatuses with television program information corresponding to said television program ID (providing search results including program IDs [0051]).

Omoigui does not further disclose providing said file to other apparatuses.

Knudson discloses in an analogous art a search apparatus comprising a file containing characteristic words (a list of program categories [0053]) and means for "providing said file to other apparatuses" (the list is provided to user equipment [0053]).

It would have been obvious to have modified the search apparatus as disclosed by Omoigui with the teaching of Knudson so that the search apparatus provides a file of characteristic words (characteristics 236, descriptive information 238 [Omoigui Fig 4], categories [Knudson 0053]) to the user equipment for the purpose of allowing the user to search for program listings by selecting characteristic words [Knudson 0056] instead of manually entering search terms [Omoigui 0050], thus improving the invention by allowing the user to conduct searches using an ordinary remote control (remote control 42 [Knudson 0056]).

8. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omoigui (US 2005/0076378) in view of Knudson et al. (US 2006/0095937), further in view of Sumita (US 6581207).

Regarding claim 6, depending on claim 4, Omoigui in view of Knudson does not further disclose wherein said characteristic word extraction means analyzes a sentence contained in said television program information and extracts said characteristic word from a remaining part except a part corresponding to a specified prescription.

Sumita discloses a characteristic key word extraction means [Fig. 9] wherein said characteristic word extraction means analyzes a sentence contained in said television program information and extracts said characteristic word from a remaining part except a part corresponding to a specified prescription (an unwanted word list [Fig 9] or “stop word” list [col. 6, l. 36-38] is used to exclude words corresponding to a “specified prescription” of being common or indefinite words [col. 6, l. 36-38] [col. 7, l. 18-20]).

It would have been obvious to have modified the keyword extraction means with the teaching of Sumita’s keyword extraction means for the purpose of excluding indefinite words from being keywords.

Claim 8, depending on claim 4, is rejected as in the rejection of claim 6 wherein a list of “stop words” is a list of predetermined words that are prevented from being extracted as characteristic key words [Sumita col. 6, l. 36-38].

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Omoigui (US 2005/0076378) in view of Knudson et al. (US 2006/0095937), further in view of Herz (US 5835087).

Regarding claim 9, depending on claim 4, Omoigui in view of Knudson does not further disclose wherein said characteristic word extraction means determines whether or not a synonym is found in a plurality of words extracted as said

characteristic words and, if a synonym is determined to be found, converts said extracted word into a specified word and extracts it as a characteristic word.

Herz discloses a characteristic word extraction means (means for constructing an object profile comprising characteristic words [col. 1, l. 18-25]) wherein said characteristic word extraction means determines whether or not a synonym is found in a plurality of words extracted as said characteristic words and, if a synonym is determined to be found, converts said extracted word into a specified word and extracts it as a characteristic word (object similarity is measured [col. 14, l. 41-49] by using a synonym dictionary and replacing keywords with their synonyms [col. 15, l. 18-34]).

It would have been obvious to have modified the characteristic word extraction means with the means for correlating synonyms for the purpose of improving the search results [Omoigui 0050] by correlating synonyms.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENNETT INGOLDSTAD whose telephone number is (571)270-3431. The examiner can normally be reached on M-Th 8-6:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BI

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2623